



NCDOT ENVIRONMENTAL MANAGEMENT SYSTEM EMS FRAMEWORK

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NCDOT Office of Environmental Quality



NCDOT Environmental Management System CONTENTS

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I. Purpose

The North Carolina Department of Transportation (NCDOT) offers the implementation of an **Environmental Management System (EMS)** based on the ISO 14001 standard as a way of demonstrating environmental leadership, environmental responsibility, and commitment to continual improvement. An EMS is a structured management methodology that allows a department, business unit, or **organization** to demonstrate a focus on meeting, or in some cases exceeding, regulatory compliance. It enables consistent and repeatable environmental performance and accountability and promotes continual improvement by establishing policy, setting improvement goals, and establishing programs to achieve those goals.

This document has been prepared in compliance with the ISO 14001:2004 model and can be used to support the development and maintenance of a complete and effective EMS in accordance with this standard. While it is not required that NCDOT implement ISO 14001 procedures or become ISO 14001 certified, this EMS system is one of the many tools the department can use to enhance our Environmental Stewardship. ***This EMS manual is intended to be a central reference for EMS implementation in order to promote standardization within NCDOT, understanding that each implementing Division or Unit will need to modify these materials somewhat based on their unique business needs. This EMS Framework shall be reviewed and approved by Branch, Division, Unit managers at least every 3 years.***

The ISO 14001 EMS model is based on the “Plan, Do, Check, Review” model promoted by Walter Shewhart and Edwards Deming (Figure 1). There are three high-level goals of an EMS, as defined by the ISO 14001 standard. The EMS must meet or exceed regulatory requirements, must promote pollution prevention, and must show a commitment to **continual improvement**. The established structure to meet these goals is divided into the following ISO 14001 elements:

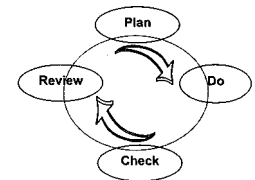


Figure 1. The PDPCR Model

ISO 14001 Elements

Environmental Policy (and Management Commitment) (4)	1. General requirements (4.1) 2. Environmental policy (4.2)
Planning (4.3)	3. Environmental aspects (4.3.1) 4. Legal and other requirements (4.3.2) 5. Objectives, targets and program(s) (4.3.3)
Implementation and Operation (4.4)	6. Resources, roles, responsibility and authority (4.4.1) 7. Competence, training and awareness (4.4.2) 8. Communication (4.4.3) 9. Documentation (4.4.4) 10. Control of Documents (4.4.5) 11. Operational Control (4.4.6) 12. Emergency preparedness and response (4.4.7)
Checking (4.5)	13. Monitoring and measurement (4.5.1) 14. Evaluation of compliance (4.5.2) 15. Nonconformity, corrective and preventive action (4.5.3) 16. Control of records (4.5.4) 17. Internal audit (4.5.5)
Review (4.6)	18. Management Review (4.6)

II. Project Management

A critical part of a successful EMS implementation is effective Project Management. It is highly recommended that good Project Management (PM) practices be established at the very beginning of an EMS and continued throughout its implementation. The specific PM strategies and practices need to be assessed and identified by the Roles and Responsibilities Section of this EMS. The Project Management Institute (PMI) encourages the use of a model focusing on the Process Groups of Initiation, Planning, Execution, Control, and Closing, which encompass the Knowledge Areas of Integration, Scope, Time (scheduling), Cost, Quality, **HR**, Communication, Risk, Purchasing, and Ethics. These are all elements that must be interwoven into a well-managed project. Other good models exist, and regardless of which Project Management model is followed, thorough and conscientious project management should be mandatory.

III. Overview of the ISO 14001 Elements and Estimated Timeline

1. Estimated Timeline – The chart below indicates the Suggested Sequence of Steps for EMS Design and Timeline (Modified from the North Carolina Dept of Environment and Natural Resources (NCDENR) ESI ISO 14001:2004 Environmental Management System Design Guidance and Timeline Version 1.0, 9/8/05)

EMS Elements	Month(s) 1-2	Month(s) 3-4	Month(s) 5-6	Month(s) 7-8	Month(s) 9-10	Month(s) 11-12	Month(s) 13-14	Month(s) 15-16	Month(s) 17-18	Month(s) 19-20	Month(s) 21-22	Month(s) 23-24
Management Review Board Meetings												*
EMS Team Meetings												
Gap Analysis											**	
Step 1: Roles and Responsibilities and Scope												
Step 2: Initial Environmental Review (Legal & Other)												
Step 3: Aspects, Policy, and Impact Analysis												
Step 4: Operational Control & Emergency Response												
Step 5: Monitoring and Measurement												
Step 6: Objectives, Targets, and Programs												
Step 7: Documentation and Document Control												
Step 8: Corrective and Preventive Action												
Step 9: Competence, Training, and Awareness												
Step 10: Compliance and Records												
Step 11: Communications and Management Review												
Step 12: Internal Auditing												

* First internal audit with results reported at next management review board meeting

** First Management Review Board meeting covering all requirements of ISO 14001:2004

Note that the steps are not scheduled in the numeric order of the ISO 14001 elements. **NCDENR** ESI has found through considerable experience that this suggested implementation sequence is highly effective. This schedule may be modified at the discretion of the EMS Implementation Team based upon implementation needs. It is recommended that this manual be utilized in conjunction with the NCDENR ESI ISO 14001:2004 Environmental Management System Design Guidance and Timeline.

NCDENR Website <http://www.enr.state.nc.us/>

2. General Requirements / Scope of the EMS (ISO 14001 – 4.1)

(DENR ESI Step 0 – Preliminary Activity)

NCDOT has developed this EMS Framework to provide a central, standardized reference for implementing a methodology for demonstrating and improving its commitment to environmental excellence based on ISO 14001. The scope of the EMS may encompass an entire operation or business and all of its activities, or it may encompass a limited segment of an operation. The scope of the EMS is defined by Executive Management in conjunction with the EMS Team or EMS Team Leader / Responsible Person.

The EMS then addresses all environmental aspects that may have a significant impact on the environment arising from these activities. The EMS covers only those aspects for which the NCDOT is responsible or over which it can reasonably expect to have control or influence. Once the EMS scope has been identified, the organization developing the EMS should ensure that sections 3-19 below are addressed in their EMS if compliance with ISO 14001:2004 is desired.

3. Environmental Policy (ISO 14001 – 4.2)

(DENR ESI Step 3)

NCDOT has a publicly available Environmental Stewardship Policy that has been endorsed by the NC Board of Transportation (BOT). The policy sets forth the environmental commitments of NCDOT and includes a commitment to care for the environment. The NCDOT Environmental Stewardship Policy is cited in NCDOT-L4-GenOps-002b NCDOT Environmental Policy. **This policy was established to meet the needs of the broader NCDOT organization, and does NOT meet all of requirements of ISO 14001. Therefore, each NCDOT Division or Department wishing to comply with ISO 14001 must develop their own Environmental Management System (EMS) Policy which elaborates upon the NCDOT Environmental Stewardship Policy and covers the activities within their defined EMS scope.** This is addressed in NCDOT-L1-GenOps-002 Environmental Policy. In order to facilitate general awareness communication to all employees across the department and among all contractors who interact with the EMS, it is advised that the Environmental Policy be kept brief and simple.

4. Environmental Aspects (ISO 14001 – 4.3.1)

(DENR ESI Step 3)

The EMS Team is selected by the management of the organization implementing the EMS. The team should be comprised of key stakeholders from within the department and from other departments and organizations which have significant interactions with the environmental interests in the department's activities, products, or services.

NCDOT-L2-GenOps-010 Environmental Aspect & Impacts identifies the environmental aspects. Environmental Aspects are elements of organization's activities, products or services which can interact with the environment within the EMS scope. Environmental Impacts are any change to the environment whether adverse or beneficial, wholly or partially resulting from an organization's activities, products, or services. The EMS Team, then determines which aspects have a significant impact on the environment. Aspects determined to have significant impacts are reviewed periodically by the EMS Team as well as anytime there are new or changed activities to consider. Team discussions and procedures used to determine significant impacts are recorded in EMS Team meeting minutes. **The EMS Team Leader / Responsible Person** maintains the EMS Team meeting minutes and other records, as required by the NCDOT-L2-GenOps-013 Resources, Roles, Responsibility, & Authority.

5. Legal and Other Requirements (ISO 14001 – 4.3.2)

(DENR ESI Step 2)

As part of Division or Unit commitment to regulatory compliance, the EMS Environmental Policy typically recommends compliance with environmental regulations and other requirements according to NCDOT-L2-GenOps-011 Legal & Other Requirements. This procedure involves identifying, accessing, and communicating legal and other environmental requirements that are applicable to the activities within the EMS scope. Information necessary to ensure compliance is acquired through the expertise of key employees within the organization, legal publications, and other sources identified by the EMS responsible person. The relevant requirements are identified, documented in NCDOT-L4-GenOps-011a Form for Legal & Other, and communicated. At least yearly, the EMS responsible person reviews the current national, state, and local legal requirements and other requirements to ensure ongoing compliance requirements are documented.

6. Objectives, Targets, and Management Programs (ISO 14001 – 4.3.3)

(DENR ESI Step 6)

The EMS Team establishes environmental performance *measures* for *all* aspects identified to have significant impacts. The EMS team should set performance improvement *goals* (objectives and targets) for *some of these aspects*. Typically, it is not realistic to immediately attempt to address all opportunities for improvement. However, measurement of all aspects with significant impacts should start fairly quickly in order to begin establishing baseline data for future improvement efforts. Management programs are structured improvement activities established to attempt to meet the objectives and targets set for the aspects selected for improvement. The EMS Team develops and recommends objectives, targets, and management implementation plans for aspects by considering significant environmental impacts, legal and other requirements, technical and financial resources, environmental policy, and operational needs and requirements. **The EMS Team** develops objectives and targets to define:

- 1) performance objectives (e.g., monitor, study, control or improve) for each selected aspect with a significant impact;
- 2) specific, quantified targets which define those performance objectives; and,
- 3) planned schedules for achieving targets.

Once identified, these goals and management (implementation) plans are approved by management and reviewed periodically. This effort is outlined in NCDOT-L2-GenOps-012 Objectives & Targets & Management Programs.

7. Resources, Roles, Responsibility and Authority (ISO 14001 – 4.4.1)

(DENR ESI Step 3)

The **EMS Team Leader / Responsible Person** and/or Executive Sponsors shall identify roles, responsibilities, and authority levels for all personnel involved in EMS development, implementation, and maintenance. Management must ensure that the resources (e.g., budget, personnel, time, equipment, and management support) required for implementing and controlling the EMS are allocated and supported. EMS programs require resources for project management, human resources, financial resources, equipment, baseline measurement, documentation, technical and informational services, training, etc. One critical success factor is the identification of an EMS Team Leader / Responsible Person with primary responsibility for establishing, operating, and maintaining the EMS (in accordance with the ISO 14001 standard if compliance is desired). The EMS responsible person will also be responsible for reporting EMS progress and recommendations for improvement to top management. The EMS Team provides routine EMS support and reports directly to the EMS Team Leader / Responsible

Person. NCDOT-L2-GenOps-013 documents the recommended selection process of the EMS responsible person and the EMS Team.

8. Competence, Training and Awareness (ISO 14001 – 4.4.2)

(DENR ESI Step 9)

EMS implementation includes training for personnel on both general awareness and competency. Awareness training ensures that all personnel are familiar with the EMS environmental policy how it may be environmentally relevant to their work activities. Additional competency training addresses environmental procedures that are specific to individual work activities. All personnel receive appropriate training based on a delivery procedure that matches training requirements with job descriptions and work activities. Competency also involves being able to show that the training is understood (comprehended) at an adequate level. The EMS Team and/or EMS Responsible Person identifies, plans, monitors and records awareness and competency training needs and delivery for all personnel with activities within the scope of the EMS. NCDOT-L2-GenOps-014 Competence, Training, and Awareness addresses effective and timely training for employees at all levels, to ensuring awareness of:

- The importance of conformance with the environmental policy;
- The implementation of environmental management procedures and the EMS;
- The actual and potential significant environmental impacts of their work activities;
- The environmental benefits of improved personnel performance;
- Their own roles and responsibilities for achieving conformance with the policy and procedures, and with requirements of the EMS; and
- The potential consequences of departure from specified operating procedures.

9. Communication (ISO 14001 – 4.4.3)

(DENR ESI Step 11)

EMS communication must include internal, external organizations and contractors. The purpose of internal communication is to ensure that environmental information is disseminated to all personnel and that all personnel clearly understand the available communication methods for participation in the EMS. External communication may include individuals, groups, government agencies (federal, state and local), local business, and others outside of the organization, including contractors who serve as extensions of NCDOT when they are performing work on NCDOT's behalf. Each division or department will establish and maintain a procedure for internal and external communication relating to the EMS as described by NCDOT-L2-GenOps-015 Communication.

10. Documentation (ISO 14001 – 4.4.4)

(DENR ESI Step 7)

Each Division or Unit within NCDOT wishing to establish an EMS should establish and maintain documentation for the core elements of the EMS. All EMS-related documents are referenced in the Division or Unit EMS Manual, and copies of the EMS documents can be obtained from the Division or Unit EMS responsible person or their designee, upon request. All documentation should be handled in accordance with NCDOT-L2-GenOps-016 Documentation & Doc Control.

11. Control of Documents (ISO 14001 – 4.4.5)**(DENR ESI Step 7)**

Document control procedures exist to ensure that documentation revisions are distributed and outdated versions are removed promptly and methodically, and that all personnel have access to current EMS documentation. NCDOT-L2-GenOps-016 Documentation and Document Control describes how documents are generated; when and how they are approved; when and how they are reviewed, amended, and re-approved; where originals are stored; how originals or copies may be accessed; and how obsolete documents are destroyed or archived. A list of controlled documents is provided in NCDOT-L4-GenOps-016a Document Log.

12. Operational Control (ISO 14001 – 4.4.6)**(DENR ESI Step 4)**

Operational control procedures must be developed for operations associated with aspects with significant impacts, as identified in NCDOT-L2-GenOps-010 Environmental Aspect & Impacts. Per NCDOT-L2-GenOps-017 Operational Control, operational control procedures stipulate operating criteria and instructions to ensure operations and activities are carried out appropriately.

13. Emergency Preparedness and Response (ISO 14001 – 4.4.7)**(DENR ESI Step 4)**

Emergency preparedness and response plans identify the potential for and response to environmental accidents and emergency situations. These plans also address the prevention and mitigation of the environmental impacts of accidents that do occur. The EMS includes emergency preparedness and response plans developed using environmental control procedure NCDOT-L2-GenOps-018 Emergency Preparedness & Response. The EMS Team reviews emergency plans annually and following any accidents or emergency situations that do occur.

14. Monitoring and Measurement (ISO 14001 - 4.5.1)**(DENR ESI Step 5)**

Aspects with significant environmental impacts must be monitored and measured in order to establish baseline data for imminent or future improvement efforts. NCDOT-L2-GenOps-019 Monitoring & Measurements provides guidelines for the monitoring and measurement of key characteristics of activities within the EMS scope that have aspects with significant impacts. This procedure outlines requirements for performance tracking, equipment calibration and maintenance, and ensures that related records are retained.

15. Evaluation of Compliance (ISO 14001 - 4.5.2)**(DENR ESI Step 10)**

NCDOT-L2-GenOps-020 Evaluation of Compliance the defines responsibility and authority for establishing, implementing and maintaining procedure(s) for periodically evaluating compliance with applicable legal and other requirements consistent with its commitment to compliance. The organization shall keep records of the results of the periodic evaluations relating to compliance with legal and other requirements.

16. Nonconformity, Corrective Action and Preventive Action (ISO 14001 - 4.5.3)

(DENR ESI Step 8)

NCDOT-L2-GenOps-021 **Nonconformity**, Corrective & Preventive Action defines the responsibility and authority for identifying, handling, and investigating occurrences of non-conformance with EMS requirements. This includes taking action to mitigate significant environmental impacts as well as initiating and completing corrective and preventive action. Any changes in procedures resulting from corrective and preventive actions are implemented and documented.

17. Control of Records (ISO 14001 - 4.5.4)

(DENR ESI Step 10)

Records and logs of operational activities must be used and maintained in consistent manner. NCDOT-L2-GenOps-022 Control of **Records** specifies how environmental records are correctly used, maintained, and filed. Environmental records relevant to the EMS include, but are not limited to, training records, EMS Procedures, Environmental Policy, and the results of audits and reviews. Records shall be legible, identifiable, traceable, readily retrievable, and protected against damage, deterioration and loss. A record and document retention period is also specified in the procedure.

18. Internal Audit (ISO 14001 - 4.5.5)

(DENR ESI Step 12)

NCDOT conducts internal EMS audits (*required if ISO 14001 Certifications is pursued*) to ensure that the EMS has been properly implemented and is being maintained. Audits include reviews of documentation and records; monitoring and measurements results; and personnel interviews. The results of these audits are communicated to senior management for inclusion in the management review process. Audits are performed according to a regular schedule based on the management review cycle. The audit procedure NCDOT-L2-GenOps-023 **Internal Audits** covers the audit scope, frequency, methodologies applied and the responsibilities and requirements for conducting audits and reporting results. All auditors must be properly trained, and the audit records are provided to the EMS responsible person for use in the management review process.

19. Management Review (ISO 14001 - 4.6)

(DENR ESI Step 11)

The EMS review process includes a senior management review of all elements of the EMS. Management reviews are conducted at least annually to ensure suitability, adequacy and effectiveness of the EMS, as defined in operational control procedure NCDOT-L2-GenOps-024 Management. Management reviews may result in improvements or changes to strategies, goals, policies, processes, or procedures.

20. Definitions and Acronyms

Abnormal Conditions – conditions which are not typical, unusual, or irregular

Auditor - person with the training and competence to conduct an audit

NCBOT – NC Board of Transportation

CAR – Corrective Action Report (actions to be taken to resolve a nonconformance)

Continual Improvement - recurring process of enhancing the environmental management system in order to achieve improvements in overall environmental performance consistent with the organization's environmental policy

Controlled Document - all documents, whether electronic or hard copy, need to be uniquely identifiable. In most cases, it is also necessary to track the changes that occur to the document and record its distribution throughout the document's development and subsequent revision

Corrective action - action to eliminate the cause of a detected nonconformity

Document - information and its supporting medium; Information can be captured and stored using various methods - paper (text, diagram, blueprint, photograph, etc), electronic (text, picture, etc), or other relevant formats

NCDENR ESI – NC Department of Environment & Natural Resources Environmental Stewardship Initiative

DEO – Division Environmental Officer

EHS – Environmental, Health, and Safety

EMS – see Environmental Management System

EMS Owner – the manager or director selected by Executive Management to be responsible for long term maintenance and continued development of the EMS once it has been developed and implemented

EMS Team - group of individuals responsible for the development, implementation, and maintenance of the EMS system

EMS Team Leader - person selected by management who will lead the development and implementation of the EMS within the organization

EMS Responsible Person - person selected by management who will be responsible for long term maintenance and continued development of the EMS once it has been developed and implemented

Environment - surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation. Surroundings in this context extend from within an organization to the immediate community and potentially to the global environment.

Environmental aspect – an element of an organization's activities, products, or services that can interact with the environment (*cause*). A *significant* environmental aspect has or can have a *significant* environmental impact.

Environmental impact - any change to the environment (*effect*), whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects

Environmental Management Plan (EMP) - a strategic, high-level plan established by NCDOT Executive Management to provide strategic environmental direction

Environmental Management System (EMS); A structured management methodology which allows a department, business unit, or organization to demonstrate a focus on meeting, or in some cases exceeding, regulatory compliance. It enables consistent and repeatable environmental performance and accountability and promotes continual improvement by establishing policy, setting improvement goals, and establishing programs to achieve those goals. ISO 14001 is one of several EMS formats; if compliance with ISO 14001 is desired, compliance with its specifications is required

Environmental objective - overall environmental goal, consistent with the environmental policy, that an organization sets itself to achieve

Environmental performance - measurable results of an organization's management of its environmental aspects

Environmental policy - overall intentions and direction of an organization related to its environmental performance as formally expressed by top management; The policy provides a framework for the setting of environmental objectives and targets

Environmental target - detailed performance requirement, applicable to the organization or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives

Executive Management – Upper Level Management with the authority and willingness to approve strategic approaches, allocate personnel, monetary, and physical resources, and provide persuasive support across the organization when asked for such support or when aware of the need for such support

HR – Human Resources

Interested party - person or group concerned with or affected by the environmental performance of an organization

Internal audit - systematic, independent, and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the environmental management system meets audit criteria set by the organization

MPO – Metropolitan Planning Organization

Major Nonconformity – Refusal of failure to conform to the major sections of the ISO 14001 standard

Nonconformity (NC) - Non-fulfillment of a requirement

Objectives - the goals that define the strategic direction of an division/unit, and are delivered through the work of projects. These objectives may be found in a Div/Unit Business Plan, Strategic Plan, Budget Papers

Operational Control – a procedure which will control situations with a potential for negative environmental impact and will link operations to significant environmental aspects, significant impacts, the environmental policy, objectives and targets. Also commonly known as a Standard Operating Procedure or SOP

Organization – company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration. For organizations with more than one operating unit, a single operating (department or division, etc) unit may be defined as an organization

Pareto analysis - A statistical technique in decision making that is used for selection of a limited number of tasks that produce significant overall effect. It uses the Pareto principle - the idea that by doing 20% of work you can generate 80% of the advantage of doing the entire job.

Pareto analysis is a formal technique useful where many possible courses of action are competing for your attention. Basically, it consists of estimating the benefit delivered by each action with subsequent selection of a number of the most effective actions that deliver the total benefit reasonably close to the maximal possible one

Performance Measures -Criteria for measuring a project's success, whether the project is under control and the level of adherence to documented plans, methodologies and standards.

Preventive action - action to eliminate the cause of a potential nonconformity

Prevention of pollution - use of processes, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant or waste, in order to reduce adverse environmental impacts. Prevention of pollution can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment

Procedure – specified, repeatable method carry out an activity or a process. A procedure is not necessarily documented

RCCA – root cause and corrective action analysis. If a non-conformity (NC) has been discovered, the organization tasked with resolving the NC must perform an analysis to determine the true cause of the NC. This analysis should result in the identification of potential causes that led to the NC. Examples of potential causes could be procedural inadequacy, equipment failure, inadequate training, human error, etc

Record - document stating results achieved or providing evidence of activities performed


RPO – Rural Planning Organization

Standard Operating Procedure (SOP) – See Operational Control

Targets Outcome - The measurable benefits that are sought from undertaking a project. Target outcomes are achieved from the utilization of the outputs delivered by a project. Stated, identified targets and measures are developed for gauging progress towards their achievement

Trainees - all employees or others working on behalf of the Department or Division within the scope of the EMS who must be included in training

Un-Controlled Document - Documents that are located anywhere in Division/Unit that is not directly controlled and listed within Environmental Management System. In every other respect they are same as "Controlled Documents"

NCDOT Div. or Unit EMS 	EMS Scope Definition		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L1-GenOps-001	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.1 General Requirements	
	<i>Document references</i>	none	

Purpose:

The purpose of this document is to outline the scope of the Environmental Management System (EMS) for NCDOT Division or Unit.

Scope:

The scope of the NCDOT Division or Unit EMS includes the following activities or operations: A, B, C, etc. The primary focus shall be on those employees whose job description directly impacts these activities. A secondary focus shall include employees who indirectly impact these activities. Any activities or operations not explicitly included are implicitly excluded from the scope.

Responsibilities:


The Environmental Management System Team (EMS Team) will review the scope annually for updates and changes.

Procedure:

1. Upper/Executive Management and the EMS Team or EMS Team Leader shall jointly develop the initial EMS scope. In some cases, Upper/Executive Management shall provide a significant level of direction during the establishment of the initial EMS scope.
2. Periodically, the EMS Team shall strategize with Upper/Executive Management regarding the direction of the EMS.
3. Annually, the EMS Team shall review the EMS scope and propose changes (if any) to the scope to Upper/Executive Management. Typically, this shall align with the annual EMS Management Review.
 - A cost/benefit analysis shall be completed to evaluate costs, benefits, and time to implement additions or changes to the EMS scope.
4. Upper/Executive Management shall decide whether to approve the proposed scope additions or modifications and, if desired, shall provide additional direction as well.
 - If approved, Upper/Executive Management is committing to support the EMS Team with reasonable funding, resource allocation, and influence to accomplish the approved goal(s).

EMS Scope Definition Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS	Division or Unit Environmental Policy	
	<i>Division:</i> (Div/Unit as needed):	Division or Unit
	<i>Prepared By:</i>	
	<i>Number & Revision:</i>	NCDOT-L1-GenOps-002 Revision X
	<i>Revision Date:</i>	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.2 Environmental Policy
	<i>Document references</i>	NCDOT-L4-GenOps-002a NCDOT -L4-GenOps-002b

Purpose:

The purpose of this procedure is to describe how the NCDOT Division or Unit Environmental Policy was developed how it will be maintained.

Scope:

The NCDOT Division or Unit Environmental Policy applies to the areas included in the scope of the NCDOT Division or Unit as well as the NCDOT Environmental Stewardship Policy. The policy may also include additional environmental guidance.

Responsibilities:


It will be the responsibility of the EMS Owner to ensure that the NCDOT Division or Unit Environmental Policy is implemented and maintained.

Procedure:

1. The NCDOT Division or Unit Environmental Policy is created collaboratively by NCDOT Division or Unit Executive Management and the EMS Team or EMS Team Leader. In order to facilitate general awareness training to all employees in the organization and among all contractors who interact with the EMS, it is advised that the policy be kept brief and simple.
 - a. The policy should be aligned with the NCDOT Environmental Stewardship Policy and the NCDOT Environmental Management Plan.
 - b. This policy must ensure the following:
 - i. The EMS is suitable to the nature, scale and environmental impacts of NCDOT Division or Unit activities.
 - ii. A commitment to continual improvement
 - iii. A commitment to the prevention of pollution
 - iv. A commitment to comply with necessary legal and other requirements
 - c. The policy must provide a framework for setting and reviewing NCDOT Division or Unit objectives and targets.
 - d. This policy must be documented, implemented and maintained.
 - e. Lastly, this policy must be available to those working for or on behalf of NCDOT Division or Unit as well as the public.
- 2) The NCDOT Division or Unit Environmental Policy is approved by the NCDOT Division or Unit Executive Management and their Deputy Secretary.

Environmental Policy Revision History


Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Log for Receipt, Review, and Understanding of the Div/Unit Environmental Policy		
	<i>Division:</i> (Div/Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-002a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.2 General Requirements	
	<i>Document references</i>	NCDOT-L1-GenOps-002	


RECEIPT, REVIEW, AND UNDERSTANDING OF ENVIRONMENTAL POLICY

I acknowledge receipt, review, and understanding of the Division / Unit Environmental Policy by signing below:

Date	Name	Signature	Personnel #

<p>NCDOT Div. or Unit EMS</p> 	NCDOT Environmental Stewardship Policy		
	<i>Division:</i> <i>(Div/Unit as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-002b	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.2 Environmental Policy	
	<i>Document references</i>	NCDOT-L1-GenOps-002	

Environmental Stewardship Policy Revision History




The mission of the North Carolina Department of Transportation is to provide an integrated transportation system that enhances the state's well being. Our goal is to provide a safe and well-maintained transportation system that meets the needs of our customers and supports the development of sustainable, vibrant communities. In so doing, we are committed to planning, designing, constructing, maintaining and managing an interconnected transportation system while striving to preserve and enhance our natural and cultural resources.


Environmental stewardship encompasses these responsibilities and is reflected in our day-to-day operations by:

- ◆ Safeguarding the public's health by conducting our business in an environmentally responsible manner
- ◆ Demonstrating our care for and commitment to the environment
- ◆ Recognizing that our customers expect us to provide mobility and a quality of life that includes the protection of the natural resources and the cultural and social values of their community.

Each employee is responsible for incorporating these principles of safety, environmental stewardship and customer focus into their daily activities.

Approved by the Board of Transportation on February 7, 2002.



 Chairman of the Board


 Secretary of Transportation

North Carolina Department of Transportation

ENVIRONMENTAL
Stewardship
Policy

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Environmental Aspect & Impacts Procedure		
	<i>Division:</i> <i>(Div/Unit as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-010	Revision X
	<i>Revision Date:</i>	Page 1 of 5	
	<i>ISO 14001 reference(s)</i>	4.3.1 Environmental Aspects & Impacts	
	<i>Document references</i>	NCDOT-L4-GenOps-010a NCDOT-L2-GenOps-019	

Purpose:

This procedure includes listing the operations and activities within the EMS scope and identifying the associated aspects. Environmental aspects are elements of an organizations activities, products, or services which can interact with the environment. Then impacts are identified for those aspects and scored for significance. Those aspects deemed significant will be monitored and measured per procedure NCDOT-L2-GenOps-019. A subset of the significant aspects will be assigned targets, objectives, and management programs per procedure NCDOT-L2-GenOps-019.

Responsibilities:

The Environmental Management System Team Leader (EMS Team Leader) will lead the Environmental Management System Team (EMS Team) through the aspects and impacts analysis process. The EMS Team collaboratively identifies the aspects, impacts, and rates the impacts for significance.

The EMS Team Leader will ensure that all significant environmental aspects are taken into account when the EMS is developed and implemented. The EMS Responsible Person will ensure that all significant environmental aspects are taken into account when the EMS is maintained.

Definitions & Examples:

Environmental Aspect (cause) Element of an organization's activities or products or services that can interact with the environment	Environmental Impact (effect) Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organizations environmental aspects

Procedure:

The EMS Team Leader, with help from the EMS Team, may follow these steps. This is the approach recommended for use within NCDOT, but there are many ways to identify and rate aspects and impacts.

The EMS Team may choose to utilize another method. This is an iterative process. Expect it to take several repetitions to completely “flesh out” the activity and aspect lists and agree on all the impacts associated with the aspects.

- 1) Identify and list the main operations or activities within the scope of the EMS. List these in column 1 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a), leaving space for sub-activities. See Figure 1 below. EMS scope is defined in NCDOT-L1-GenOps-001 General Requirements Scope Definition.
- 2) Identify and list the sub-activities, products, or services within the main operations or activities. These may be inputs or outputs to operations. List these in column 1 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a), under the corresponding main operations identified in step 1a.
- 3) Consider which activities may have abnormal conditions. List any new activities in column 1 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a), and indicate the abnormal condition status in column 2 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a) for any activities (new or previously identified) to which abnormal conditions may apply. An example of an abnormal condition could be severe weather or operating on back-up power generators.
- 4) For each activity, or sub-activity, list all associated environmental aspects. Then identify how each of these activities or sub-activities interact with the environment or cause environmental interactions. List or describe the environmental aspects in column 3 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a), next to the corresponding activity or operation.
- 5) For each activity (or sub-activity), product or service, there may be more than one aspect. In defining aspects, consider what can impact or create releases into the environment, including but not limited to:
 - Air emissions
 - Releases to water
 - Solid waste management
 - Contamination of land
 - Excessive noise
 - Cultural/Community
 - Other

Also consider what materials or resources are used (e.g., water, energy) such as:

- Raw materials and natural resources
- 6) In columns 4 – 16, Environmental Impacts, of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a), identify the environmental impacts associated with each aspect and rate the significance of each. Use columns 15 and 16 to identify impacts not already listed. Use multiple pages if necessary. Aspects may have multiple impacts. Use the following guidelines to rate the impacts:
 - a) For each aspect, score each environmental impact identified as either a detrimental or beneficial impact. Do this for both normal and abnormal (where applicable) conditions.

Scoring criteria:

<i>Detrimental</i>	-10	High Impact - environmental effects are likely to cause local or regional habitat destruction or degradation, or environmental legislation or regulations apply
	-5	Medium Impact - environmental effects are possible or there is noticeable environmental degradation
	-1	Low Impact - environmental effects are not likely, or the activity is not regulated
<i>Beneficial</i>	1	Low Impact – minimal beneficial environmental effects are possible
	5	Medium Impact- beneficial environmental effects are likely
	10	High Impact - highly beneficial environmental effects are likely to occur

- 7) Repeat any of steps 1-6 if the team is not confident that all activities, aspects, and impacts have been captured. This is an iterative process. It may take several repetitions to completely “flesh out” the activity and aspect lists and agree on all the impacts associated with the aspects.
- 8) The impact scores are totaled in column 17.
- 9) Review the identified aspects and rate each aspect for frequency using the scale defined below. Input the frequency rating in column 18 of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a).

Frequency Scale

- 3 - Expect aspect to occur
- 2 - Aspect occurs occasionally (from time to time)
- 1 - Aspect unlikely to occur

- 10) In Column 19 calculate the Score by multiplying Total Impact (17) by Frequency (18).
- 11) Use a **Pareto Analysis** to identify 20 % of the most detrimental (20 % of the most - scores) and assign the least negative of that 20% as value S1 - the detrimental significant breakpoint. Any thing less negative is preliminary non-significant. A Pareto Analysis is a statistical technique in decision making that is used for selection of a limited number of tasks that produce significant overall effect. It uses the Pareto principle - the idea that by doing 20% of work you can generate 80% of the advantage of doing the entire job. Pareto analysis is a formal technique useful where many possible courses of action are competing for your attention. Basically, it consists of estimating the benefit delivered by each action with subsequent selection of a number of the most effective actions that deliver the total benefit reasonably close to the maximal possible one.
- 12) Use a Pareto Analysis to identify 20 % of the most beneficial (20 % of the most + scores) and assign the lowest score of the 20% as value S2 - the beneficial significant breakpoint. Any thing below this is preliminary non-significant. It is possible that may be NO beneficial aspects.

- 13) Now the EMS Team should manually re-evaluate both S1 and S2 to see if they make practical sense. The 20% guide is a starting point. Using good business and common sense, adjust the breakpoints so that they provide a practical evaluation of significant versus non-significant impacts. **Document your reasoning** in your meeting minutes and provide brief notations in the comment block of the Aspects and Impacts Matrix (NCDOT-L4-GenOps-010a).
- a) For example, if the 20% guide does not include all aspects with environmental regulations, then S1 needs to be adjusted to include all aspects with such regulations.
 - b) Also, if individual aspects fall outside of the breakpoint guidelines but need to be included, they may be included at the team's judgement. For example, one aspect may not score as significant, but may involve a sensitive environmental issue from a public perspective, therefore good business management may deem that it should be treated as significant. S1 and S2 may be "tightened" if the range is too broad.
- 14) Once the significant aspects have been identified (those with a score of $< -S1$ or $> S2$) or as manually adjusted, enter S for significant or NS for not significant in column 20.
- 15) The aspects identified as significant in column 20 are the aspects which will be monitored and measured per procedure NCDOT-L2-GenOps-019 Monitoring & Measurements. A subset will be assigned targets, objectives, and management programs per procedure NCDOT-L2-GenOps-012 Objectives & Targets & Management Programs.
- 16) A high-level overview of the Aspects and Impact process is outlined in the Aspects and Impacts Flowchart in Figure 2 below.

Figure 1: Sample NCDOT-L4-GenOps-010a NCDOT Environmental Aspects and Impacts Matrix

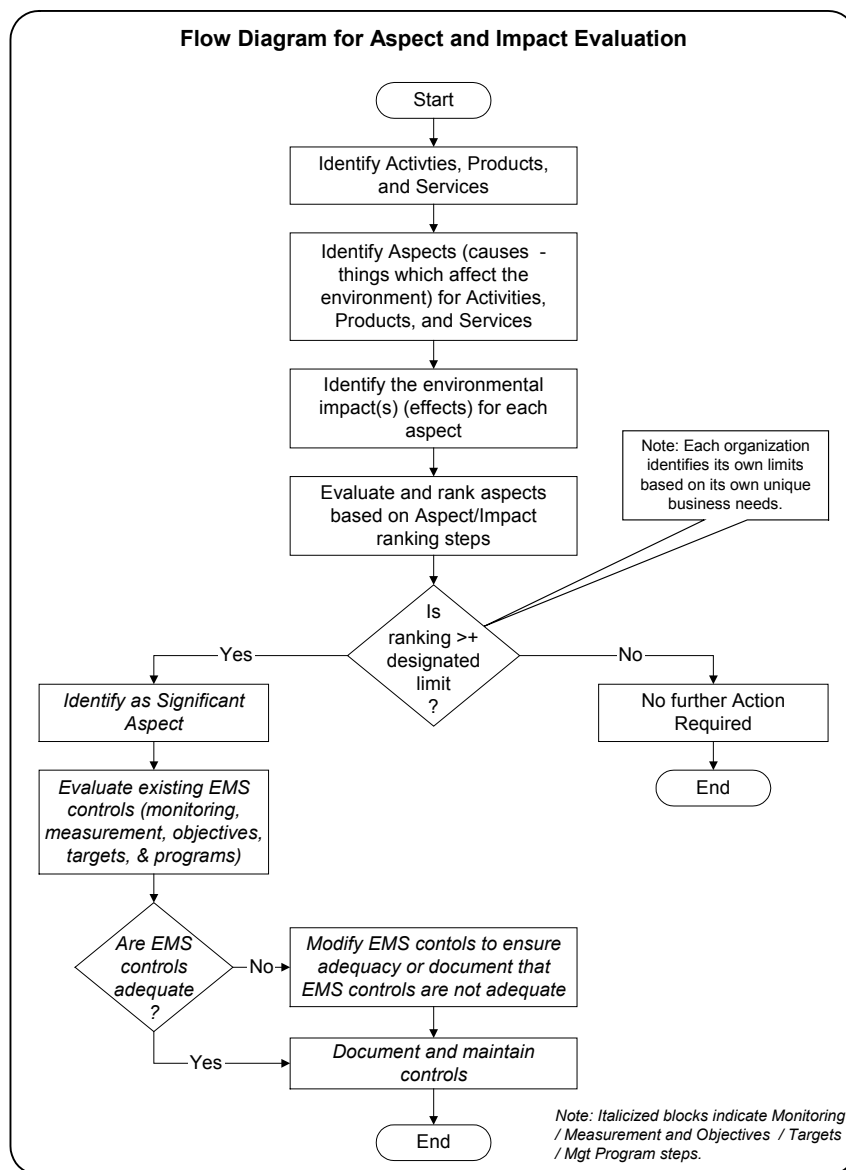



Figure 2 - Flow Diagram for Aspect and Impact Evaluation

Environmental Aspects and Impacts Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision


 <p>NCDOT Div. or Unit EMS</p>	Environmental Aspect & Impacts Matrix		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-010a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.3.1 Environmental Aspects & Impacts	
	<i>Document references</i>	NCDOT-L4-GenOps-010	

NCDOT –L4- GenOps- 010a

[illegible]

Environmental Aspects and Impacts Matrix Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Identifying Legal and Other Requirements		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-011	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.3.2 Legal and Other Requirements	
	<i>Document references</i>	NCDOT-L2-GenOps-011a	

Purpose:

This procedure is used to identify all legal, regulatory, legislative, and other environmental requirements to which the organization must conform, as well as the status of the organization's compliance. These requirements may be mandatory or voluntary as set forth by NCDOT or the organizational Unit.

Responsibilities:

The EMS Responsible Person is responsible for ensuring that all of the applicable permits have been identified and are in place within the EMS scope.

The EMS Responsible Person is responsible for ensuring that all necessary personnel are trained to meet permit requirements.

Procedure:


1. The EMS Responsible Person, in collaboration with the supervisors or managers responsible for operations within the EMS scope, completes NCDOT-L4-GenOps-011a Form for Legal & Other Requirements. Every attempt should be made to obtain a thorough list identifying all legal and other environmental requirements for activities, products, and services within the scope of the EMS.
2. The EMS Responsible Person or their designee should stay informed of changing environmental regulations. Any relevant additions or modifications to regulations affecting activities, products, or services within the scope of the EMS should be promptly updated on NCDOT-L4-GenOps-011a Form for Legal & Other Requirements.

Following are some examples of methods to stay abreast of regulatory changes:

- obtaining a regulatory guidance manual and subscription to ensure access to amendments;
 - reviewing regulatory updates and the compliance calendar and attending compliance workshops offered by the federal, state and local regulatory agencies;
 - using consultant(s) specializing in compliance issues;
 - accessing documentation and websites with compliance assistance content.
3. The EMS responsible person or their designee reviews the List of Legal and Other Requirements at least annually.

Legal and Other Requirements Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Form for Listing Legal and Other Environmental Requirements		
	<i>Division:</i>	Division or Unit	
	<i>(Div/ Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-011a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.3.2 Legal & Other	
<i>Document references</i>	NCDOT-L2-GenOps-011		

Form for Listing Legal and Other Environmental Requirements:


Environmental Aspect	Legal Requirement/ Regulation (OSHA Std #, permit #, etc)	Legal Document / Permit Location	Reference (SOP, etc)

Other Environmental Requirements or Programs

Environmental Aspect	Requirement (mandatory or voluntary)	Reference (SOP, etc)

Listing Legal and Other Environmental Requirements Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Developing Objectives, Targets, and Management Programs		
	<i>Division:</i> (Div/ Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-012	Revision X
	<i>Revision Date:</i>		Page 1 of 2
	<i>ISO 14001 reference(s)</i>	4.3.3 Objectives, Targets, & Management Programs	
	<i>Document references</i>	NCDOT-L2-GenOps-012a	

Purpose:

This procedure is used to evaluate each aspect with a significant impact to assess whether or not an environmental objective, target, and management program (i.e. implementation plan) should be established.

Then, for those aspects selected, objectives, targets, and management programs are established.

Responsibility:

The EMS Team will evaluate each aspect with a significant impact and assess whether or not an environmental objective, target, and management program should be established. For those aspects selected, the EMS Team will provide Executive Management with recommendations for objectives, targets, and management programs.

The EMS Responsible Person will provide status reports on objectives, targets, and management programs at the Management Review Board Meetings.


Procedure:

- 1) The EMS Team identifies which aspects should be assigned objectives, targets, and management programs.
 - a) The EMS Team determines what is a reasonable amount of improvement to pursue. This should be quantified in some manner; (number of aspects with objectives and targets, amount of work associated with meeting these objectives and targets, or some other method). It is typically not practical to address all opportunities for improvement, thus prioritization and targeted selection of aspects is needed.
 - b) The EMS Team determines what strategy or approach to pursue regarding aspect selection, for example:
 - i) More, easier-to-implement objectives and targets
 - ii) Fewer, more-difficult-to-implement objectives and targets
 - iii) Focus on one particular operational area
 - iv) Community, political, or employee interest in particular aspects.

- c) The EMS Team identifies potential aspects for selection by considering the following:
 - i) Does the organization have control or influence over the aspect? If not, do not set objectives and targets for that aspect.
 - ii) Do technically feasible options exist to control the aspect? If not, do not set objectives and targets for that aspect.
 - Do not make a “no” conclusion because of past or bureaucratic roadblocks. Carefully consider whether a “no” conclusion is real or contrived. Consider atypical options, new technologies, or technologies that have traditionally been applied to other industries.
 - iii) Are the technically feasible options financially feasible? If not, do not set objectives and targets for that aspect.
 - d) Based upon what the EMS Team determined to be a reasonable amount of improvement to pursue and what strategy to take, the EMS Team selects which of the potential aspects from step c) to select.
- 2) For those aspects selected, the EMS Team identifies objectives, targets, and management programs (implementation plans). Objectives and targets should be set so that they are valuable and challenging, yet achievable goals.
 - a) For each aspect selected, review any measurements currently being collected per NCDOT-L2-GenOps-019 Monitoring & Measurements. Consider additional useful measurements.
 - b) Utilizing identified measurements to quantify progress, identify objectives, targets, and management programs.
 - i) Identify objectives. (a general focus of the improvement effort, for example, “reduce contamination of surface water”)
 - ii) Identify targets. (a specific, measurable goal, such as “reduce contamination of surface water by 10% of current 200x levels, or “Reduce non-recyclable waste by 1 ton per week”)
 - iii) Identify management programs (implementation plans). Identify what steps your organization is going to take to meet these goals. Steps may involve improving revising operating methods, utilizing new or different technology or materials, utilizing different schedules, training, part redesign, retooling, etc.
 - This may be a costly or involved step, which is why it is critical for management to be involved.
 - 3) The EMS Team Recommends Objectives, Targets, and Management Programs to Executive Management. If approved, the EMS Team or the EMS Responsible Person implements the Objectives, Targets, and Management Programs, as directed by Executive Management.

Objectives, Targets, Revision History


Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Form for Documenting Objectives, Targets, and Management Programs		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-012a	Revision X
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.3.3 Objectives, Targets, & Management Programs	
<i>Document references</i>	NCDOT-L2-GenOps-012		

OBJECTIVE				
Significant Aspect				
TARGET				
Resources				
MANAGEMENT PROGRAM				
	IMPLEMENTATION TASK DESCRIPTION	RESPONSIBILITY	TARGET COMPLETION	ACTUAL COMPLETION DATE
TASK 1:				
TASK 2:				
TASK 3:				
TASK 4:				
TASK 5:				
TASK 6:				
TASK 7:				
TASK 8:				

Documenting Objectives, Targets, and Management Programs Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Resources, Roles, Responsibilities, & Authority	
	<i>Division:</i>	Division or Unit
	<i>(Div /Unit as needed):</i>	
	<i>Prepared By:</i>	
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-013 Revision X
	<i>Revision Date:</i>	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.1 Resources, Roles, Responsibilities, & Authority
	<i>Document references</i>	NCDOT-L4-GenOps-013a

Purpose:

In order to be effective, the people involved in developing, implementing, and maintaining Environmental Management Systems must have clearly identified roles, responsibilities and authority.

Responsibility:

Executive Management shall ensure that resources are available provides necessary solicited and unsolicited support to the EMS Owner and EMS Team.


The EMS Responsible Owner is responsible for ongoing EMS implementation and development.

Procedure:

1. Executive Management collaboratively or directly selects the EMS Team Leader, EMS Owner, and the EMS Responsible Person prior to EMS development.. Preferably, this is done collaboratively.
2. The EMS Team Leader has primary responsibility for establishing the EMS in accordance with the ISO 14001 standard.
3. The EMS Responsible Person has primary responsibility for operating and maintaining the EMS in accordance with the ISO 14001 standard and for proposing recommendations for improvements. The EMS Team Leader and EMS Responsible Person may be the same person.
4. The EMS Team Leader, EMS Team, EMS Owner, EMS Responsible Person, and Executive Management collaboratively solicit/choose EMS Team Members from within the organization and possibly outside of the organization within the first month of EMS development. Direct appointments to the EMS Team by management may occur but are not preferred for an effective team environment. Team members should have skills, knowledge, or influence valuable to the EMS.
5. The EMS Team provides implementation support for the EMS, followed by routine support once the EMS is fully implemented.
6. NCDOT-L4-GenOps-013a List of Resources, Roles, Responsibilities, and Authority lists specific roles, responsibilities, and authority for EMS Team Members and Key Stakeholders.

Resources, Roles, Responsibility Revision History


Date	Name	Revision #	Reason for Revision	Description of Revision

<div> <div>NCDOT Div. or Unit EMS</div>  </div>	List of Resources, Roles, Responsibilities, and Authority	
	<i>Division:</i> (Div/ Unit as needed):	Division or Unit
	<i>Prepared By:</i>	
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-013a Revision X
	<i>Revision Date:</i>	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.1 Resources, Roles, Responsibility, & Authority
	<i>Document references</i>	NCDOT-L2-GenOps-013

EMS Role	Summary of Responsibilities	Authority Level (can allocate resources & make decisions to what extent)
Executive Management	Upper Level Management with the authority and willingness to approve strategic approaches, allocate personnel, monetary, and physical resources, and provide persuasive support across the organization when asked for such support or when aware of the need for such support. HR – Human Resources	.
EMS Owner	The manager or director selected by Executive Management to be responsible for long term maintenance and continued development of the EMS once it has been developed and implemented	
EMS Responsible Person	Person selected by management who will be responsible for long term maintenance and continued development of the EMS once it has been developed and implemented	
EMS Team	Group of individuals responsible for the development, implementation, and maintenance of the EMS system	
EMS Team Leader	Person selected by management who will lead the development and implementation of the EMS within the organization	

Resources, Roles, Responsibilities, and Authority Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for EMS Competence, Training and Awareness		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-014	Revision X
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.2 Competence, Training, & Awareness	
	<i>Document references</i>	none	

Purpose:

The purpose of this procedure is to ensure that all Division or Unit employees or those working on its behalf within the scope of the EMS are competent in the EMS training they have received.

Responsibility:

It is the EMS Owner's responsibility to ensure that all competency measures exams are administered and evaluated graded for satisfactory understanding of training.

Procedure:


There are numerous methods to ensure training competency. The EMS Owner, EMS Responsible Person, and possibly the EMS Team must decide which method is the most appropriate method for Department or Unit's business and operations. The method must meet the following criteria:

1. All employees or others working on behalf of the Division within the scope of the EMS (trainees) must have their training needs evaluated relative to EMS procedures and policy.
2. All employees or others working on behalf of the Division must be included in general EMS training.
3. All employees or others working on behalf of the Division will be evaluated for general knowledge and importance of the EMS, including significant aspects and impacts, roles and responsibilities, and the consequences of not following procedures.
4. All trainees with specific EMS SOP related job duties will be evaluated against that SOP during an audit.
5. Evaluation results from the audit will be documented and maintained per NCDOT-L2-GenOps-016 Documentation & 4.4.5 Document Control.
6. Evaluations during the audit may take the form of tests, or objective observation by someone knowledgeable of the operation and operator skill, supervisory assessment, or other means. Evaluations must show competence, be objective, and be documented.

(see NCDOT-L2-GenOps-23e)

Competence Training & Awareness Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	EMS Training Sign Off Sheet		
	<i>Division:</i>	Division or Unit	
	<i>(Div/Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-000c	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.6 Operational Control	
<i>Document references</i>	NCDOT-L3-GenOps-000 SOP Operation ABC		

RECEIPT OF EMS PROCEDURES


I acknowledge receipt and review of the following NCDOT Division EMS Procedures:

NCDOT Procedure YYY (which includes AAA, BBB, CCC)

[illegible]

EMS Training Sign-off Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Communications		
	<i>Division:</i> (Div/ Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-015	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.3 Communication	
	<i>Document references</i>	NCDOT-L2-GenOps-015a	

Purpose:

The purpose of this procedure is to identify channels of communication and inform all relevant parties of these channels.

Responsibility:


It is the responsibility of the EMS Owner to ensure that all involved parties have been informed of information that relates to their role within the environmental management system.

Procedure:

1. The EMS Owner and EMS Team Leader will jointly develop a communication plan, utilizing NCDOT-L2-GenOps-015a EMS Communications Plan Template as a basis for communicating regularly throughout the organization.
2. General issues of concern by individuals within the division should be brought to the attention of the EMS Owner in written form, which may include email or memo.
3. EMS Owner will take necessary steps to ensure that all information is directed to the right personnel.
4. EMS Owner shall follow up with the all parties.
5. The EMS Owner and EMS Team Leader will jointly develop and document a communication plan for receiving and responding to external requests for information.

Communication Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

CDOT Div. or Unit EMS 	Communications Plan Template		
	<i>Division:</i>	Division or Unit	
	<i>(Div/ Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-015a	Revision X
	<i>Revision Date:</i>		Page 1 of 4
	<i>ISO 14001 reference(s)</i>	4.4.3 Communications	
<i>Document references</i>	NCDOT-L2-GenOps-015		

EMS Communications Plan
Updated mm/dd/200x

Audience	Key Messages	When & Frequency	By Whom	How / Medium	Verification of receipt & understanding
1. Executive Sponsor & Executive Leaders <ul style="list-style-type: none"> Deputy Secretary General Consul Division Director Other Executive Stakeholder(s) 	Progress of EMS development <ul style="list-style-type: none"> Progress (or lack of) according to schedule Barriers to success 	Bi-weekly initially, then Monthly once EMS development is mature.	EMS Team Leader	E-mail or paper report to stake-holders	E-mail response to EMS Team Leader indicating that report has been reviewed & understood. If no response, Team Leader follows up with phone call.
	EMS Implementation Priorities	Quarterly	EMS Team Leader	Quarterly EMS Review Meeting	Check-in quarterly review meeting

2. EMS Team <ul style="list-style-type: none"> • EMS Team Leader • EMS Responsible Person • EMS Owner • EMS Team Members • Key Department Managers & Supervisors 	Project Gantt Chart revisions per EMS Team updates.	Weekly on Fridays or upon significant progress or completion of key milestones	EMS Team Leader	E-mail of Gantt Chart in PDF format.	E-mail response to EMS Team Leader indicating that report has been reviewed & understood. If no response, Team Leader follows up with phone call.
	EMS implementation progress	Weekly on Fridays or upon significant progress or completion of key milestones	EMS Team Leader	E-mail describing progress & relevant time, staff, & cost information. Issuance of EMS meeting minutes to EMS Team members	E-mail response to EMS Team Leader indicating that report has been reviewed & understood. If no response, Team Leader follows up with phone call.
	EMS Implementation Priorities	Monthly	EMS Team Leader	Group meeting	Check-in during group meeting
3. OEQ Consultants As Assigned	High level progress reports (if desired by OEQ)	Bi-weekly or monthly	EMS Team Leader	E-mail	E-mail response indicating receipt of e-mail from EMS Specialist.
4. NCDENR ESI Coaches As Assigned	EMS update info as determined by Unit & NCDENR ESI (if using ESI coaches)	As agreed upon by Unit & NCDENR ESI	EMS Team Leader	E-mail report to NCDENR ESI Coach	E-mail reply from NCDENR ESI coach indicating receipt of info.
5. EMS Sub-Team <ul style="list-style-type: none"> • EMS Sub-Team Members • OEQ EMS Specialist • NCDENR ESI Coach 	Overview of sub-team purpose, timeline, and explanation of roles: <ul style="list-style-type: none"> • Purpose • Where do they fit • Other key players 	TBD	Sub-Team Leader	TBD	TBD
	Schedule of delivery of sub-team deliverable(s)	TBD	Sub-Team Leader	TBD	TBD


6. Division or Unit Employees or those working on its behalf	General informative article, possibly for use in general organization communication channels.	Quarterly	TBD –Director / Communications Officer	Various communications channels.	General Distribution of communiqué to all employees or those working on organization's behalf.
	Provide overview and status of EMS implementation.	During scheduled unit/department staff meetings.	Unit Leaders	Staff Meetings (face to face)	Staff meeting agenda & attendance sheets.
7. NC DOT general employees • PIO Office	General informative article, possibly for use in The Loop or other publications.	Upon completion of significant milestones.	EMS Owner or Executive Management	E-mail or hard copy articles	E-mail response from PIO office indicating that article has been reviewed & noting if/when it will be included in a publication.
8. NCDOT Management • Secretary • Deputy Secretary	EMS Status Overview • Background and purpose • Scope • Schedule and milestones • Key players • Contact info	TBD	EMS Owner, Team Leader, or EMS Specialist through Deputy Secretary	Senior staff meeting	Follow-up by: Division / Branch/ Unit Managers
	High-level updates on major milestones • Planned vs actual achievements • Issues	Quarterly or when significant milestone is reached	EMS Owner, Team Leader, or EMS Specialist through Deputy Secretary	Single page memo	Follow-up by: Division / Branch/ Unit Managers

9. Board of Transportation	EMS Status Overview <ul style="list-style-type: none">• Background and purpose• Scope• Schedule and milestones• Key players• PM contact info	TBD	EMS Owner or Division / Branch/ Unit Managers	Board Meeting Update or Memo	Board Meeting Attendance by, EMS owner or EMS Team Leader
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Communication Plan Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

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NCDOT Div. or Unit EMS 	Procedure for Documentation, Document Control, and Records		
	<i>Division:</i>	Division or Unit	
	<i>(Div/ Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-016	Revision
	<i>Revision Date:</i>		Page 1 of 3
	<i>ISO 14001 reference(s)</i>	4.4.4 Documentation & 4.4.5 Document Control, & 4.5.4 Control of Records	
	<i>Document references</i>	NCDOT-L4-GenOps-016a NCDOT-L4-GenOps-016b	

Purpose:

The purpose of this procedure is to provide instructions for control of existing documents, forms, and records. It also addresses the creation of new documents, forms, and records included in the Division or Unit EMS.

Scope:

This procedure addresses documents, forms, and records that are included in the Division or Unit EMS. It addresses how they are created, updated, reviewed, approved, distributed, accessed, stored, archived, and disposed of. This procedure does not address problem and process analysis or evaluation criteria resulting in a new or revised procedures or forms.

Responsibilities:

The EMS Responsible Person is responsible for monitoring all EMS documentation.

Definition: Records are forms which have data or information recorded on them. They must be stored for a period of time determined by the business retention policy or the EMS policy if different from the business policy. They must also be stored in a location determined by either the business needs or the EMS policy. In either case, the EMS document log must identify the location of records.

Procedure:

- 1) **EMS Documentation:** The EMS Responsible Person shall maintain a central location for controlled EMS documentation. If ISO14001 compliance is desired, this shall be maintained according to the ISO 14001 standard sections 4.4.4 and 4.4.5. Some EMS documentation, especially records and forms, may be stored at field locations. The EMS Responsible Person shall establish, document, and maintain a system to monitor all EMS documentation stored at district or field locations. The location and general content of all procedures or records should be identified in the Documentation Log NCDOT-L2-GenOps-016a.
- 2) **Determination of Need for New or Revised Procedures or Forms:** The EMS Responsible Person in consultation with the EMS Team, or Division or Unit management, will determine the need for new or revised procedures in response to business needs, audit findings, strategic plans, or annual reviews, etc. They will also identify whose signatures are required to authorize new procedures or revisions. List these approving positions in the approval section of the procedure.
- 3) **Development of New or Revised Procedures or Forms:** Upon determination of a need and having identified the necessary procedure/revisions/form, the EMS Responsible Person or their delegate updates the information as follows:
 - a) Creation of a new procedure:
 - i) Using the procedure template NCDOT-L4-GenOps-016b Procedure Template, fill in all sections of the procedure such that the procedure is complete, brief, easy-to-understand, and

contains all relevant instructions and all relevant cross-references to other documentation, regulations, or forms. Be sure the procedure clearly identifies who (by position) does what, how (method, tools or support needed), and when (time, circumstances, frequency).

- ii) The EMS Responsible Person will assign a new document number based on the following method:

- (1) NCDOT-Lx where x identifies procedure level 1 for Policy, 2 for Management Procedures, 3 for Operating Procedures, and 4 for Forms and Records. NCDOT may be replaced by Div/Unit abbreviations as appropriate. Once selected, these prefixes should be used for all procedures within the implementing Branch, Unit, or Division.
- (2) NCDOT-Lx-dept where dept identifies the main department or function where the procedure applies. NCDOT may be replaced by Div/Unit abbreviations as appropriate.
- (3) NCDOT-Lx-dept-## where ## is the next available number in that Organization/Units listing. Previously used and canceled numbers will NOT be reused. NCDOT may be replaced by DIVx or Unit abbreviations as appropriate.

- iii) All procedures will incorporate the following:

- (1) A block header on the first page that includes the Title, Division & Unit, Author, Procedure Number & Revision, Revision date.
- (2) If not a controlled copy, all copies and electronic versions shall also contain a statement in the footer specifying "This is an uncontrolled copy of a controlled document."
- (3) Additional optional categories as needed (scope, training, tools, resources, etc)
- (4) Revision History block
- (5) Approval Signatures on the original

b) Creation of a new form:

- i) Design the form as needed for its purpose. Keep it as simple and straightforward as possible while maintaining completeness and usefulness.
- ii) The format of a form is controlled; the data collected on the form is not controlled but is collected and stored according to procedure.
- iii) The EMS Responsible Person will assign a new form number based on the following method:

- (1) Using the Procedure Number to which the form is associated, change the L# to an L4, then add a lower case letter to the end, starting with a, then b if "a" already exists for another form for that procedure, then c, etc. to designate the form.
- (2) For example, procedure NCDOT-L2-GenOps-016 might have form NCDOT-L~~2~~4-GenOps-016~~a~~.

- iv) All forms will incorporate the following:

- (1) A block header on the first page which includes the Title, Division & Unit, Author, Form Number & Revision, & Revision date.
- (2) A page number in the footer.
- (3) If not a controlled copy, all copies and electronic versions shall also contain a statement in the footer specifying "This is an uncontrolled copy of a controlled document."
- (4) Additional optional categories as needed (training, tools, resources, etc)
- (5) Revision History block
- (6) Approval Signatures on the original


c) Revisions to Existing Procedures or Forms:

- i) Update the information to reflect the needed revisions.
- ii) Update the revision history block to reflect the revision history data.

- 4) **Procedure Review:** The EMS Responsible Person or their designee should review the new or revised procedure or form for correct content and grammar prior to requesting approvals. Appropriate consultation should be requested if additional expertise is needed to verify content.
- 5) **Approval of new or revised procedures or forms:** Based on the signature authority established in step 2, obtain signatures on new and revised procedures and forms.
- 6) **Storage of original procedures and forms:** The EMS Responsible Person will store all original copies of EMS Procedures and forms at the designated central EMS storage location. Obsolete copies of original EMS Procedures and Forms should be stamped "OBSOLETE" and moved to an archive EMS file. Archived EMS files may be disposed of in accordance with the organization's Administrative Retention Policy, or other retention policy if documented. Procedure and form locations shall be identified in NCDOT-L4-GenOps-016a Document Log.
- 7) **Storage & Control of Records:** Records will be stored at the designated central EMS storage location or at a designated field location based on business needs. If the main storage location is a field location, a copy of the completed form shall be kept at the central EMS storage location. Record locations shall be identified in NCDOT-L4-GenOps-016a Document Log.
 - a) Environmental records are maintained in an archive so as to be retrieved as needed based on the following criteria:
 - i) Include records of all data and information required in Environmental Management activities such as training records and the results of audits and review, expired permits, inspection results, etc.
 - ii) Ensure that environmental records are legible, identifiable and traceable to the activity, product or service involved.
 - iii) Ensure that environmental records are stored and maintained such that they are readily retrievable and protected against damage, deterioration or loss.
 - iv) Ensure that the retention times of these records have been established and recorded.
- 8) **Distribution of procedures and forms:** The EMS Responsible Person will distribute copies of the procedure or form to relevant division or functional personnel for inclusion with their EMS documentation. Obsolete procedures or obsolete blank forms in the field should be shredded.
- 9) **Electronic availability of procedures, forms, and records:** The EMS Responsible Person will establish and document a policy, process, and if appropriate, a procedure, for making documents available and current electronically.
- 10) **Review Frequency:** Procedures should be reviewed for changes by the EMS Responsible Person or their delegate at least every 3 years, or other interval if documented by the EMS Team.
- 11) **Levels of Documentation:** Documents should be filed according to the appropriate Level:
 - Level 1 - Environmental Policy Procedures
 - Level 2 - Requirements / Management Procedures
 - Level 3 - Operating procedures Work Instructions / SOP's
 - Level 4 - Records / Forms (Inspections, Check -off's)

Document and Document Control Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Listing Documents		
	<i>Division:</i> (Div / Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-016a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.4 Documentation & 4.4.5 Document Control	
	<i>Document references</i>	NCDOT-L2-GenOps-016 NCDOT-L4-GenOps-016b	

Purpose:

The purpose of this procedure is to provide instructions for listing documents, forms, and records included in the Division or Unit on the EMS Document Log.

Scope:

This procedure addresses documents, forms, and records that are included in the Division or Unit EMS. It addresses how they are entered on Form NCDOT –L4-GenOps-16a. This procedure does not address problem and process analysis or evaluation criteria resulting in a new or revised procedures or forms.


Responsibilities:

The EMS Responsible Person is responsible for entering, data and maintaining log accuracy.

Definition: Logs are forms that indicate the types of documents that are currently being maintained at the Division, Branch, or Unit. The log has three sections: EMS Document #, EMS Document List, & Document Location. EMS Document Logs must be stored for a period of time determined by the business retention policy or the EMS policy if different from the business policy. The EMS Document Log must also be stored in a location determined by either the business needs or the EMS policy. In either case, the EMS document log must identify the location of records.

Procedure:


EMS Documentation: The EMS Responsible Person shall maintain a central location for controlled EMS documentation. If ISO14001 compliance is desired, this shall be maintained according to the ISO 14001 standard sections 4.4.4 and 4.4.5. Some EMS documentation, especially records and forms, may be stored at field locations. The EMS Responsible Person shall establish, document, and maintain a system to monitor all EMS documentation stored.

NCDOT Div. or Unit EMS 	EMS Document Log		
	<i>Division:</i> (Dept/Sub Div as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-016a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.4 Documentation & 4.4.5 Document Control	
	<i>Document references</i>	NCDOT-L2-GenOps-016 NCDOT-L4-GenOps-016b	

EMS Document #	EMS Document Listing	Physical Location
NCDOT-L1-GenOps-001	4.1 General Requirements - Define Scope	Central EMS File
NCDOT-L1-GenOps-002	4.2 Environmental Policy	Central EMS File
NCDOT-L4-GenOps-002a	Environmental Policy sign off log	Central EMS File
NCDOT-L4-GenOps-002b	NCDOT Environmental Stewardship Policy	Central EMS File
NCDOT-L2-GenOps-010	4.3.1 Environmental Aspect & Impacts	Central EMS File
NCDOT-L4-GenOps-010a	NCDOT Environmental Aspects and Impacts Matrix	Central EMS File
NCDOT-L2-GenOps-011	4.3.2 Legal & Other Requirements	Central EMS File
NCDOT-L4-GenOps-011a	Form for Legal & Other Requirements	Central EMS File
NCDOT-L2-GenOps-012	4.3.3 Objectives & Targets & Management Programs	Central EMS File
NCDOT-L2-GenOps-012a	Form for Objectives & Targets & Management Programs	Central EMS File
NCDOT-L2-GenOps-013	4.4.1 Resources, Roles, Responsibility, & Authority	Central EMS File
NCDOT-L4-GenOps-013a	List of Resources, Roles, Responsibilities, and Authority	Central EMS File
NCDOT-L2-GenOps-014	4.4.2 Competence, Training, & Awareness	Central EMS File
NCDOT-L2-GenOps-015	4.4.3 Communication	Central EMS File
NCDOT-L2-GenOps-015a	Communication Plan Template	Central EMS File
NCDOT-L2-GenOps-016	4.4.4 Documentation, Document Control, Control of Records	Central EMS File
NCDOT-L4-GenOps-016a	EMS Document Log	Central EMS File
NCDOT-L4-GenOps-016b	Procedure Template	Central EMS File
NCDOT-L2-GenOps-017	4.4.6 Operational Control	Central EMS File
NCDOT-L2-GenOps-018	4.4.7 Emergency Preparedness & Response	Central EMS File
NCDOT-L2-GenOps-019	4.5.1 Monitoring & Measurements	Central EMS File
NCDOT-L2-GenOps-019a	Monitoring & Measurements Form	Central EMS File
NCDOT-L2-GenOps-020	4.5.2 Evaluation of Compliance	Central EMS File
NCDOT-L2-GenOps-021	4.5.3 Nonconformity, Corrective & Preventive Action	Central EMS File
NCDOT-L4-GenOps-021a	Corrective and Preventive Action Form	Central EMS File
NCDOT-L4-GenOps-021b	Corrective and Preventive Action Tracking Log	Central EMS File
NCDOT-L2-GenOps-023	4.5.5 Internal Audits	Central EMS File
NCDOT-L4-GenOps-023a	Internal Audit Plan Form	Central EMS File
NCDOT-L4-GenOps-023b	Internal Audit Summary Report Form	Central EMS File
NCDOT-L4-GenOps-023c	Internal Audit Request List	Central EMS File
NCDOT-L2-GenOps-024	4.6 Management Review	Central EMS File

Procedure for Listing Documents Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure Template - Write your procedure title here		
	<i>Division:</i> <i>(Div /Unit as needed):</i>	Division or Unit Write Department here	
	<i>Prepared By:</i>	Your Name, Your Title	
	<i>Number & Revision:</i>	NCDOT-L4-Gen Ops-016c <i>Put assigned procedure or form #</i>	Revision #
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.x.x <i>Put ISO 14001 cross-reference here</i>	
	<i>Document references</i>	NCDOT-L4-Unit Name-0xxa <i>Put cross-referenced procedure or form #.</i>	

PURPOSE:

Write a brief description of the purpose of the procedure.

The purpose of this procedure section is to provide instructions or information to allow team members to understand the following policy(s) or perform the certain activity(s).

SCOPE: (optional)

Write a brief description of the scope (what is and IS NOT) included in the procedure.

This section includes information or instructions about (List subsections/pertinent topics here). It does not address related issues or instructions such as It limits explanations on topic z to

RESPONSIBILITIES:


Briefly identify the responsible parties. Responsibilities may be delegated, but ultimately the EMS Responsible Person is the one accountable for carrying out the procedure, in addition to Identifying what activity(ies) for which each position is responsible for. Do not identify specific individuals.

PROCEDURE:

Explain, completely, clearly, and simply, what is required and how to accomplish it. Use a sequential document number and break the section into subsections as needed.

Procedure Template Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. Or Unit EMS 	Procedure for Developing Operational Controls		
	<i>Division: (Div/ Unit as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-017	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.6 Operational Control	
	<i>Document references</i>	none	

Purpose:

ISO 4001 requires that an organization must develop Operational Controls, also known as Standard Operating Procedures or SOPs, for those operations that are associated with significant aspects.

Responsibilities:


The EMS Responsible Person is responsible for ensuring that all Operational Controls are properly documented. The EMS Team and relevant operations support personnel shall assist the EMS Responsible Person as needed.

Procedure:

- 1) For all significant aspects identified in NCDOT-L4-GenOps-010a NCDOT Environmental Aspects and Impacts Matrix, the EMS Responsible Person shall identify whether adequate Operational Controls procedures that currently exist. Adequate procedures will control situations with a potential for negative environmental impact and will link operations to significant environmental aspects, significant impacts, the environmental policy, objectives and targets.
 - a) Operational control procedures also include management operations. These procedures cover the management and control of both the EMS and the principal environmental aspects, which the system manages.
- 2) If current Operational Controls are not adequate, then the EMS Responsible Person shall coordinate the revision or creation of adequate Operational Controls.
- 3) All Operational Controls Procedures will be assigned an EMS document number and will be reviewed per NCDOT-L2-GenOps-016 Documentation & Document Control.

Operational Controls Procedure Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Developing Emergency Preparedness & Response Procedures		
	<i>Division:</i>	Division or Unit	
	<i>(Div / Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-018	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.7 Emergency Preparedness & Response	
	<i>Document references</i>	none	

Purpose:

ISO 14001 requires that an organization should develop Emergency Preparedness and Response Procedures for emergency situations, which can have a negative impact on the environment.

Responsibilities:


The EMS Responsible Person is responsible for ensuring that all necessary Emergency Preparedness and Response Procedures exist and are properly documented. The EMS Team and relevant support personnel shall assist the EMS Responsible Person as needed.

Procedure:

- 1) For all significant aspects identified in NCDOT-L4-GenOps-010a NCDOT Environmental Aspects and Impacts Matrix, the EMS Responsible Person shall identify whether adequate Emergency Preparedness and Response Procedures currently exist. Adequate procedures will provide information on how to identify and respond to an emergency situation as well as how to prevent or mitigate an emergency situation with negative environmental impacts.
- 2) If current Emergency Preparedness and Response Procedures are not adequate then the EMS Responsible Person shall coordinate the revision or creation of adequate procedures.
- 3) All Emergency Preparedness and Response Procedures will be assigned an EMS document number and will be reviewed per NCDOT-L2-GenOps-016 Documentation & Document Control.
- 4) The Emergency Preparedness and Response Procedure should be Signed by the authorizing entity.

Emergency Preparedness and Response Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Environmental Monitoring and Measurement		
	<i>Division:</i>	Division or Unit	
	<i>(Div/ Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT- L2-GenOps-019	Revision X
	<i>Revision Date:</i>		Page 1 of 2
	<i>ISO 14001 reference(s)</i>	4.5.1 Monitoring & Measurements	
<i>Document references</i>	NCDOT- L2-GenOps-019a		

Purpose:

The Environmental Management System requires that all activities with aspects that can have a significant impact on the environment be monitored and measured. This allows baseline data to be collected in anticipation of future improvement efforts or for ongoing performance tracking. Some, but not all, of these will also have improvement goals, targets, and management programs established, per NCDOT-L2-GenOps-012 Objectives & Targets & Management Programs.

Responsibilities:

The EMS Team leader leads the EMS Team in the development of the initial measures and monitoring criteria.

The EMS Responsible Person is responsible for ensuring that the monitoring and measurement occurs as documented, reports periodically at EMS Review meetings, and implements changes to the ongoing system as recommended by the EMS Team or Executive Management.


Procedure:

- 1) Identify the following for each aspect with significant impacts (identified by an “S” in column 20 of NCDOT-L4-GenOps-010a NCDOT Environmental Aspects and Impacts Matrix), considering that this information may be the basis of future improvement efforts. NCDOT-L2-GenOps-019a Sample Monitoring & Measurements Form may be used to collect this information.
 - a) One or more key characteristics (useful, measurable feature of the aspect such as size variation, water content, # of complaints, flow rate, etc.)
 - b) One or more monitoring and measurement tool for each key characteristic (such as measurement devices, inspection logs, statistical charts, etc.)
 - c) One or more operational controls for each key characteristic which defines the actual measurement(s), (means of controlling or managing the aspect, such as an operating procedure, setting on a mechanical device, etc.)
 - d) A measurement procedure for each key characteristic which
 - i) ensures that the monitoring and measurement occurs and, if applicable, conforms to relevant targets and objectives;
 - ii) meets regulatory and legal requirements regarding performance tracking and reporting requirements;

- iii) addresses the needs for operational control of equipment and processes;
 - iv) identifies the means by which the appropriate data will be gathered; and
 - v) identifies the key aspects and impacts to which it applies.
- 2) Monitoring and measuring equipment (if applicable) is calibrated and maintained. Records of this process must be maintained according to Document Control Procedures NCDOT-L2-GenOps-016 Documentation & Document Control.

Monitoring and Measuring Revision History


Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Form for Monitoring and Measuring		
	<i>Division:</i>	Division or Unit	
	<i>(Div / Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-019a	Revision X
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.1 Monitoring & Measurements	
<i>Document references</i>	NCDOT-L2-GenOps-019		

NCDOT MONITORING AND MEASUREMENTS					
ID	ACTIVITY	ASPECTS	KEY CHARACTERISTICS	MONITORING & MEASUREMENT TOOLS	OPERATIONAL CONTROL
Activity 1					
A1	Sub-Activitiy 1	Aspect 1			
A2	Sub-Activitiy 2	Aspect 2			
A3	Sub-Activitiy 3	Aspect 3			
Activity 2					
B1	Sub-Activitiy 1	Aspect 4			
B2	Sub-Activitiy 2	Aspect 5			
B3	Sub-Activitiy 3	Aspect 6			

Form for Monitoring and Measuring Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Evaluation of Compliance		
	<i>Division: (Div / Unit as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-020	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.2 Evaluation of Compliance	
	<i>Document references</i>	none	

Purpose:

The purpose of this procedure is to ensure that NCDOT Division or Unit remains compliant with legal requirements as well as its internal audit procedure, if compliance with ISO-14001 is desired.

Responsibility:


It is the responsibility of the EMS Coordinator to ensure that a compliance evaluation is completed semi-annually.

Procedure:

1. The EMS Coordinator should conduct legal compliance assessments semi-annually.
2. The assessment shall be added to the internal audit report.
3. EMS document Log should be examined
4. Reports shall be kept for four years.

Evaluation of Compliance Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Corrective and Preventive Action		
	<i>Division:</i> (Div/ Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L2-GenOps-021	Revision
	<i>Revision Date:</i>	Page 1 of 2	
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L4-GenOps-021a NCDOT-L4-GenOps-021b	

Purpose:

This procedure defines responsibility and authority for handling and investigating occurrences of non-conformance with the requirements of the Division or Unit EMS. A major Non-Conformity is the failure or refusal to comply with the major sections of the ISO 14001 standard.

Responsibilities:

Non-Conformities are identified during the Internal Audit. The Unit Head or Manager of the area incurring a non-conformance is responsible for filling out the Corrective and Preventive Action Form.

Procedure:


When a non-conformance occurs, the Unit Head or Manager or their delegate should implement the following:

- 1) Take the appropriate corrective action.
- 2) Obtain a CPAR# from the EMS Responsible Person and write that number in the first box of NCDOT-L2-GenOps-021a CPAR Form.
- 3) Record a description of the non-conformance on NCDOT-L2-GenOps-021a CPAR Form.
- 4) Log all new CPAR's into the NCDOT-L4-GenOps-021b Corrective and Preventive Action Tracking Log. Update the log as appropriate.
- 5) Determine whether the non-conformance was major or minor.
 - a) Major Non-conformance (suggested definition by NSF-ISR)
 - i) One or more numbered requirements of ISO 14001 have not been addressed.
 - ii) One or more numbered requirements of ISO 14001 have not been implemented.
 - iii) Several similar minor non-conformity's in documentation and/or implementation when taken together, lead a reasonable auditor to conclude that one or more numbered requirements of ISO 14001 have not been addressed or implemented.
 - b) Minor Non-conformance (suggested definition by NSF-ISR)
 - i) A single observed nonconformance to the EMS standard or the organization's EMS, not considered to be a breakdown in the organization's EMS.
- 6) Analyze the problem to look for possible causes (root cause analysis).
- 7) Identify the necessary long-term corrective and/or preventive actions if initial actions were preliminary only (short-term responses).
- 8) Establish a reasonable completion date for this corrective/preventive action and implement.

- 9) Document all findings, corrective actions, and implementation estimates on NCDOT-L2-GenOps-021a CPAR Form.
- 10) Upon final completion of all corrective actions, the EMS Owner signs the NCDOT-L2-GenOps-021a CPAR Form.
- 11) The EMS Owner should store the completed CPAR form in a file for completed Corrective and Preventive Actions.

Corrective and Preventive Action Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision


NCDOT Div. or Unit EMS 	Corrective and Preventive Action Form		
	<i>Division:</i> (Div/ Unit as needed):		Division or Unit
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-021a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L4-GenOps-021 NCDOT-L4-GenOps-021b	

Attach additional pages as needed.

CPAR #:	Requested By:
Description of Non-conformance:	
List of Parties Involved	
Why did the non-conformance occur? I.e., what is/was the <u>underlying</u> cause? What can be done to prevent non-conformance from recurring or eliminate the underlying cause altogether? Are there any repercussions (good or bad) on other areas of the operations from this solution?	
Identify Major or Minor Non-conformance (see NCDOT-L2-GenOps-021 for definition) MAJOR <input type="checkbox"/> MINOR <input type="checkbox"/>	Date of Resolution of Non-conformance TEMPORARY _____ FINAL _____ (preliminary)
Description of Resolution:	
EMS Owner Final Approval EMS Owner:	Date Completed:

Corrective and Preventive Action Form Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision


<p>NCDOT Div. or Unit EMS</p> 	Corrective and Preventive Action Tracking Log		
	<i>Division:</i> <i>(Div / Unit as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-021b	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L4-GenOps-021 NCDOT-L4-GenOps-021a	

Corrective and Preventive Action Tracking Log

[illegible]

Corrective and Preventive Action Tracking Log Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS	Procedure for Internal Audits	
	<i>Division:</i>	Division or Unit
	<i>(Div /Unit as needed):</i>	
	<i>Prepared By:</i>	
	<i>Number & Revision:</i>	NCDOT- L2-GenOps-023 Revision X
	<i>Revision Date:</i>	Page 1 of 2
	<i>ISO 14001 reference(s)</i>	4.5.5 Internal Audit
	<i>Document x-references</i>	NCDOT-L4-GenOps-023a NCDOT-L4-GenOps-023b NCDOT-L4-GenOps-023c NCDOT-L4-GenOps-023d

Purpose:

The purpose of this procedure is to provide a method for planning and implementing an internal audit of the NCDOT Division or Unit EMS.

Responsibilities:

The Branch, Division, Unit Manager is responsible for selecting a Lead Internal Auditor.

The Lead Internal Auditor is responsible for developing the audit plan, selecting the audit team in consultation with the EMS Owner, providing audit team orientation, coordinating and leading the audit, and preparing and presenting audit results to management.

Procedure:Audit Preparation

- 1) A Lead Internal Auditor selects the Audit Team (if there are additional auditors), ensuring objectivity and impartiality of the auditors and audit process, in consultation with the EMS Owner.
- 2) The Lead Auditor prepares a written plan for the audit using NCDOT-L4-GenOps-023a Internal Audit Plan Form. The Lead Internal Auditor is in charge of planning and preparing a schedule to implement the internal audit.
 - a) The EMS audit plan should be developed and documented with goals that:
 - i) Ensure that the procedures incorporated into the EMS are being followed
 - ii) Determine if the EMS itself requires revision or restructuring
 - iii) Provide verification of compliance with legal and other requirements.
- 3) The Lead Internal Auditor will audit each operation every six months.
- 4) The Lead Internal Auditor will request copies of EMS related procedures, forms, and records prior to conducting the audit using NCDOT-L4-GenOps-023c Internal Audit Request List.
- 5) A pre-audit conference will then be held with the appropriate personnel to review the scope, plan and schedule and all requested documents listed in the NCDOT-L4-GenOps-023c Internal Audit Request List. This meeting will serve as a time to review documentation for the area, the Internal EMS Audit Guidelines in NCDOT-L4-GenOps-023, and past audits.

On-site Audit


- 6) The Lead Internal Auditor will conduct the audit using the guidelines identified in this document.
(see ISO 14001 Estimated Timeline Section I)
- 7) Auditors will record audit findings and any non-conformances in the NCDOT-L4-GenOps-023b EMS Internal Audit Summary Report Form, and the NCDOT-L4-GenOps-023e EMS Internal Audit Evaluation Form.

Reporting of Findings

- 8) The Lead Auditor will prepare an audit report, which summarizes the audit scope, identifies the Audit Team, describes the sources of evidence used and summarizes the audit results using NCDOT-L4-GenOps-023b EMS Internal Audit Summary Report Form and communicates the results to the EMS Owner and the EMS Responsible Person.
- 9) A post-audit conference is held to present audit findings, clarify any misunderstandings and summarize audit results.
- 10) The EMS Responsible Person will provide the organization's managers with NCDOT-L4-GenOps-023b Internal Audit Summary Report Form, and provide answers to any questions. The Lead Auditor will be available to assist in answering questions.
- 11) Each manager will review the audit findings and if necessary fill out NCDOT-L2-GenOps-021a CPAR Form, at which point the procedure for Corrective and Preventive Action, NCDOT-L2-GenOps-021, begins.
- 12) The EMS Responsible Person tracks the completion and effectiveness of corrective actions including root cause analysis using NCDOT-L4-GenOps-021b CPAR Tracking Log.

Internal Audits Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision


NCDOT Div. or Unit EMS 	EMS Internal Audit Plan Form		
	<i>Division:</i> (Div / Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-023a	Revision X
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L2-GenOps-023 NCDOT-L4-GenOps-023b NCDOT-L4-GenOps-023c	

Form for Preparing an EMS Internal Audit Plan

Division or Unit Audited	Function or Operation	Lead Auditor	Audit Team Members	Date	Special Instructions

Internal Audit Plan Form Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	EMS Internal Audit Summary Form		
	<i>Division:</i> (Div / Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-023b	Revision
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L2-GenOps-023 NCDOT-L4-GenOps-023a NCDOT-L4-GenOps-023c	

Auditor(s): _____

Date(s): _____

Element Number and Description		Audit Results	
		Major / Minor Findings	Comments
Total			

* Use additional pages as necessary.

Internal Audit Summary Form Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision




(List of documents, forms, and records requested by Internal Auditors)

[illegible]

Internal Audit Request List Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision


NCDOT Div. or Unit EMS 	Internal Audit Finding Response Form		
	<i>Division:</i> (Div / Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-023d	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L2-GenOps-023 NCDOT-L4-GenOps-023a NCDOT-L4-GenOps-023b NCDOT-L4-GenOps-023c	

Internal Audit Finding Response Form

Type of Nonconformance: (check as appropriate)			
Major <input type="checkbox"/>	Minor <input type="checkbox"/>	Positive Practice <input type="checkbox"/>	Recommendation <input type="checkbox"/>
Description (include where in the organization the finding was identified):			
ISO 14001 Reference:		Date:	Finding Number:
Lead Auditor:		Audit Team:	
Corrective Action Plan (including time frames and results of root cause analysis):			
Preventive Action Taken:			
Responsible Person:		Completion Date:	
Corrective Action Verified By:		Date:	

Internal Audit Finding Response Form Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	EMS Internal Audit Evaluation Form		
	<i>Division:</i> (Div/Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-023e	Revision X
	<i>Revision Date:</i>	mm-dd-2006	Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.5.3 Nonconformity, Corrective, & Preventive Action	
	<i>Document references</i>	NCDOT-L2-GenOps-023 Internal Audit NCDOT-L4-GenOps-023a Internal Audit Plan Form NCDOT-L4-GenOps-023c Internal Audit Request List NCDOT-L4-GenOps-23e Internal audit Evaluation	

Auditor(s): _____


Date(s): _____

Date	EMS Section Evaluated	Evaluation Method (Test, Observation, Training Log)	Comments

* Use additional pages as necessary.

Internal Audit Evaluation Form Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Procedure for Management Review		
	<i>Division:</i> (Div/ Unit as needed):	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT- L2-GenOps-024	Revision X
	<i>Revision Date:</i>		Page 1 of 2
	<i>ISO 14001 reference(s)</i>	4.5.5 Internal Audit	
	<i>Document references</i>	none	

Purpose:

The purpose of this procedure is to document the process developing the agenda for EMS status review and for conducting the Management Review.

The Management Review Process is intended to provide a forum for discussing the performance of the EMS, opportunities for improvement, and potential changes to the EMS to achieve continual improvement. It should be an opportunity for EMS Responsible Person and EMS Team Members to speak frankly with Executive Management, and for Executive Management to provide strategic direction to the EMS Responsible Person and the EMS Team.

Responsibilities:

The EMS Responsible Person is responsible for coordinating the EMS Management Review Meetings and ensuring that the necessary information is collected prior the meeting.

Procedure:

- 1) The EMS responsible person coordinates the EMS Management Review Meetings twice annually, or more often if so designated by Executive Management. Included in the Review Meeting are Executive Management, the EMS Owner, key EMS Team Members, and other key EMS representatives.
 - a) It is often useful for the meetings to coordinate with annual business planning and financial review meetings.
- 2) The EMS Responsible Person presents a summary of the EMS's performance since the last Management Review and an Executive Summary of proposed new or revised Objectives, Targets, and Environmental Management Plans (EMP's).
 - a) Strategic as well as financial proposals can then be considered in upcoming overall business planning processes.
- 3) At a minimum, each Management Review Meeting should consider the following:
 - a) Suitability, adequacy and effectiveness of the environmental policy;
 - b) Suitability, adequacy and effectiveness of the environmental objectives;
 - c) Overall suitability, adequacy and effectiveness of the EMS;
 - d) Status of objectives, targets, corrective and preventive actions;
 - e) Results of any EMS audits conducted since the last Management Review Meeting;
 - f) Suitability, adequacy and effectiveness of training efforts;
 - g) Suitability of resources, considering re-alignment of resources if required;
 - h) Extent to which changes in legislation, organizational activities, technology or stakeholder interests will require changes in the EMS


- i) Results of any action items from the previous Management Review meetings.
 - j) New recommendations for improvement
 - k) Status of current EMP's
 - l) Proposed EMP's; and
 - m) Inactive EMP's
- 4) Minutes of the Management Reviews with associated responsible entities and timeframes are taken and should include the attendees, a summary of key issues, and any action items arising from the meeting. A copy of the meeting minutes should be distributed to attendees and to any individuals assigned action items.
- 5) To assist with planning, the organization may want to develop a timeline of events that need to occur in sequence. For example: the aspects / impacts annual review should occur before new objectives and targets are developed, which should occur before Management Review Meetings which needs to occur before a budget period or cycle. Internal audits should occur in a period prior to management review meetings to allow results to be documented and presented.

Sample EMS Review Timeline of Events

	TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	Aspects/Impacts Review												
2	Objectives / Targets/ MP												
3	Internal Audit												
4	Process Review												
5	Progress Meeting												

Management Review Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Vendor Compliance Agreement Procedure		
	<i>Division:</i> <i>(Dept/Sub Div as needed):</i>	Division or Unit	
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-025	Revision X
	<i>Revision Date:</i>	Page 1 of 1	
	<i>ISO 14001 reference(s)</i>	4.4.6 Operational Control	
	<i>Document references</i>	NCDOT-L3-GenOps-000 SOP Operation ABC	

Purpose:

This procedure is used to identify vendor compliance agreement procedures, to which the Vendor must conform, as well as the status of the Vendor's compliance. These requirements may be mandatory or voluntary as set forth by NCDOT or organizational Unit.

Responsibilities:

The **EMS Responsible Person** is responsible for ensuring that all of the applicable permits have been identified and are in place within the EMS scope.

The EMS Responsible Person is responsible for ensuring that all necessary personnel are trained to meet permit requirements.


Procedure:

1) The EMS Responsible Person, in collaboration with the supervisors or managers responsible for operations within the EMS scope, completes NCDOT-L4-GenOps-025a Vendor Compliance Agreement Form. Every attempt should be made to obtain a thorough list identifying all legal and other environmental requirements for activities, products, and services within the scope of the Vendor Agreement.

2) The EMS Owner should provide over-site over the process to ensure that vendors comply with all EMS related requirements and policies, and provide corrective action for failure of compliance.

Vendor Compliance Agreement Procedure Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

NCDOT Div. or Unit EMS 	Vendor Compliance Agreement Form (Sample)		
	<i>Division:</i>	Division or Unit	
	<i>(Div / Unit as needed):</i>		
	<i>Prepared By:</i>		
	<i>Number & Revision:</i>	NCDOT-L4-GenOps-025a	Revision X
	<i>Revision Date:</i>		Page 1 of 1
	<i>ISO 14001 reference(s)</i>	4.4.6 Operational Control	
<i>Document references</i>	NCDOT-L3-GenOps-000 SOP Operation ABC		

Vendor: _____

Officer/Responsible Person: _____

Position: _____

Address: _____

City, State, Zip: _____

Phone: _____ **Fax:** _____

By signature I am attesting that the company < Company Name > for which I _____ am responsible, has received, reviewed and agree with the terms set forth in the North Carolina DOT, Environmental Management System:

- Contract employees shall ensure that all of their employees are trained in the following areas as related to their on-site work
- The contractor shall maintain documentation that each employee has received and understand NCDOT EMS policies
- The contractor is responsible to assure that each contract employee follows all safety rules of the facility
- The contract lead person should advise the employer of any hazards found by contract employers workers

In addition we will do everything possible to protect the environment by utilizing best business practices during the delivery of fuel and lubricant products.

Signature

Date

Print Name

Vendor Compliance Agreement Revision History

Date	Name	Revision #	Reason for Revision	Description of Revision

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